

XI.—*Descriptions of Ten new Species of Butterflies from the North-west Coast of Madagascar, captured by Mr. J. T. Last, in the Collection of Mr. H. Grose Smith.* By H. GROSE SMITH.

Papilio erithonioides.

Male.—*Upperside.* Both wings with markings as in *demoleus*, Linn., but on the posterior wings the stramineous band which crosses the wings before the middle is broader and the spots in the submarginal row are more lunulate; at the lower end of the dark rufous spot above the anal angle is a large subovate black spot, the middle median nervule is produced into a short tail rather more elongate than in *demoleus*.

Underside approaches nearer to *P. erithonius* than *P. demoleus*, but the anterior wings are more irrorated with stramineous scales, and on the posterior wings the central band is less rufous and broader than in *erithonius*; the curved black line which crosses the cell of that species towards its end is represented in *erithonioides* by a triangular black spot with the apex pointing outwards, and the irregular row of black bars which divides the central band is wider; the veins on the disk are black instead of stramineous, the ocellus below the costal nervule is larger; and at the anal angle, instead of the ferruginous spot crowned with a black spot centred with blue scales, is a dark rufous spot, with the black spot at its lower end as on the upperside, above which is a round black spot with a blue iris centred with brown. The submarginal lunules are more deeply incised outwardly.

Female.—*Upperside.* Both wings resemble the male, but on the posterior wings a space on each side of the large ocellus below the costal nervule is bright ferruginous; on the disk the space between the stramineous band and the row of submarginal lunules is brightly irrorated with stramineous scales, in which, between the veins, are spaces less densely irrorated with the same colour, giving the appearance of indistinct black spots, with clusters of blue scales more or less distinct below each, resembling somewhat the mottled appearance of the posterior wings of *Ophidocephalus*, Oberth. The lunules in the submarginal row are very strongly developed, the apices of each lunule being elongated towards the margin; the tail formed by the prolongation of the middle median nervule is very marked, being nearly $\frac{3}{8}$ inch long.

Underside. All the spots on both wings larger than on the upperside. Anterior wings with the first four of the sub-

marginal row of spots confluent with the marginal row, the others nearly confluent. Posterior wings with the apices of the submarginal lunules much elongated, almost extending to the marginal row, which are fully developed, the marginal lunules on each side of the tails extend down them almost to the end; across the disk the outer row of sinuate black lines is crowned with silvery blue in the middle row, the irregular black spots extend inwardly in a conical shape, and are margined outwardly with another row of bright blue lines; inside the cell at its end is a broad curved black spot centred with blue; the veins are black, broadly black on the margins. Both wings between the spots and at the base irrorated with stramineous scales. Antennæ rufous.

Expanse of wings, ♂ $3\frac{1}{2}$, ♀ $4\frac{5}{8}$ inches.

This species connects *erithonius*, which is an Asiatic, with *demoleus*, which is an African species. I have many specimens of *demoleus* from Madagascar, and was at first disposed to consider *erithonioides* a variety. The development of the tails in the female is very remarkable. This species is much larger than *erithonius*, and I have specimens of the female nearly 5 inches across the wings. A considerable series was sent.

Pieris ramona.

Male—Upperside. Both wings white. Anterior wings and inner three fourths of costal margin narrowly, thence to the apex broadly black, the black gradually narrowing along the outer margin to a little beyond the middle median nervule, where it ceases; a small black spot at the end of the cell, a cluster of black scales forming an indistinct submarginal spot between the upper and middle median nervules, the space from the outer third of the cell, and thence over the disk to the black apical band and nearly as far as the posterior angle, bright orange.

Underside. Anterior wings very pale orange stramineous, brighter towards the base, inner margin nearly white; the spots as on the upperside, but larger and very black. Posterior wings, inner half of costal margin bright orange, the rest of the wings stramineous.

Female.—Upperside. Anterior wings pale orange, costal and outer margins narrowly black, a black spot at the end of the cell; four submarginal black spots—the first below the third subcostal nervule minute, the second larger, below the first discoidal nervule, the third the largest, below the upper median nervule, the fourth below the lowest median nervule, about the same size as the third spot but less defined; a few

black scales at the posterior angle. Posterior wings brighter orange.

Underside. Anterior wings brighter, and posterior wings paler orange than on the upperside, the spots on anterior wings as on the upperside, the costal margin of posterior wings at the base bright orange.

Expanse of wings $2\frac{3}{4}$ inches.

Nearest to *P. antsianaka*, Ward, and *P. affinis*, Mab.

Mylothris majungana.

Male.—Upperside. Anterior wings milky white, with the apex from a little beyond the middle of the costal margin broadly, and thence along the outer margin gradually decreasing to the inner angle, black, the inner edge deeply dentate as in *nagare*, Grose Smith; the costal margin at the base grey, the base of the wings brightly tinged with orange. Posterior wings pale yellow, the lowest subcostal, the discoidal, and median nervules tipped with black.

Underside. Anterior wings stramineous, apex broadly fulvous, the base to the middle of the cell orange. Posterior wings bright fulvous, costal margin, from the base to the middle, orange.

Expanse of wings $1\frac{5}{8}$ inch.

Nearest to *M. Lasti*, Grose Smith, from Mombasa.

Acræa andromba.

Male.—Upperside. Resembles *A. obeira*, Hew. (*piva*, Guenée), but is smaller; the anterior wings are narrower, and the posterior wings rounder; the rufous basal colouring on the anterior wings is paler, and extends nearly to the end of the cell and to the posterior angle. On the posterior wings the rufous area extends over nearly all the wings, especially towards the anal angle, where it reaches the margin, the spots at the base and in the irregular row across the disk are comparatively smaller, the dark marginal band is more defined, in which, between the veins and touching the margin, is a row of six nearly round bright rufous spots; in *obeira* these spots are only three or four in number, are situate towards the anal angle, and are more elongate in shape.

On the underside of the posterior wings the marginal row of rufous spots is more distinct than in *A. obeira*.

The female is much paler, the coloured area of both wings being stramineous, and extending over nearly the whole of the posterior wings.

Expanse of wings, ♂ $1\frac{3}{4}$, ♀ $2\frac{1}{8}$ inches.

Hypolimnas deludens.

Male.—*Upperside.* Resembles *H. deceptor*, Trimen, from Delagoa Bay and Mombasa, but differs from it in having on the upperside of both wings a row of seven spots inside the partly obsolete submarginal row of spots of *deceptor*. In this row, on the anterior wings, the first and seventh are the largest; on the posterior wings they are all nearly the same size.

Underside. On both wings the submarginal rows of spots are very distinct. On the posterior wings the shoulder is entirely white, and the band below it is much darker, broader, and above the subcostal nervure uninterrupted, *deceptor* having above that nervure a subovate whitish-brown space. The outer marginal band of *deludens* is also much wider and darker, except near the apex and on either side of the upper median nervule, where there are paler spaces.

Female resembles *H. deceptor* ♀, but the anterior wings are shorter; on the upperside of both wings the additional row of spots is very distinct, and on the posterior wings the large central white space does not extend towards the costal margin, above the first subcostal nervule.

Expanse of wings, ♂ $2\frac{3}{4}$, ♀ 3 inches.

Thaleropsis kilusa.

Male.—*Upperside.* Anterior wings dark brown, with the base, a spot near the end of the cell, an oblique spot beyond the cell, another smaller below it and nearer the margin between the upper and middle median nervules, and a transverse space extending over the disk from the middle median nervule to the inner margin about its middle, interrupted in the middle below the cell, light brown. Posterior wings elongate to the anal angle, which is acuminate, light brown, with a broad dark brown band on the costal margin extending nearly to the apex, paler in the middle on the margin; the apex, costal nervure, and subcostal nervules tipped with dark brown, and a submarginal row of five dark brown lines (the two uppermost macular) between the veins from the discoidal nervule to near the anal angle.

Underside. Anterior wings black at the base, gradually becoming paler to the outer margin, where they are pinkish brown; the spots as above, but paler, the spots beyond the cell being pinkish brown, and the light brown discal space being more restricted below the cell; an indistinct submarginal row of dark spots following the outer margin. Posterior wings

pinkish brown, darker from the base to the middle, the outer edge of this space being fairly well defined and angulated outwardly on the first and third median nervule.

Expanse of wings $1\frac{3}{4}$ inch.

Nearest to *T. cleochares*, Hew. The shape of the anterior wings resembles *T. ionia*, Eversm., but is more sharply scalloped on the outer margin of anterior wings, and the posterior wings are more elongate and acuminate at the anal angle than in either of the two last-named species.

Libythea ancoata.

Upperside resembles *L. cinyras*, Trim., from Mauritius, but the spots in the cell and on posterior wings smaller and greyer. It differs from *L. labdaca*, Westw., in the absence of the brownish-grey patch between the lowest median nervule and submedian nervure on the anterior wings, and on the posterior wings in the band of spots below the cell being very nearly obsolete. On the underside of the anterior wings the brown spaces within the cell are narrower than in either *cinyras* or *labdaca*. On the posterior wings at the lower side of the cell from the base to beyond its end is a somewhat curved greyish-black band followed at the middle of the outer margin by a similar patch of the same colour.

Expanse of wings $1\frac{1}{2}$ inch.

Deudorix derona.

Male.—*Upperside.* Anterior wings dark brown, with an orange-red patch across the middle of the wings to the inner margin; the upper part extends into the cell towards its end, and its outer and inner edges are somewhat irregular. Posterior wings, the inner half dark brown, the remainder of the wings orange-red with a narrow black margin.

Underside. Anterior wings resemble *D. dariaves*, Hew., but the inner edge of the discal band of lines is interrupted. Posterior wings with three basal red spots narrowly surrounded with black and bordered with white, a spot near the middle of the costal margin bordered inwardly with black and margined with white, two interrupted rows of lines bordered inwardly with white, and a submarginal row bordered outwardly with white; otherwise resembles *dariaves*, but the wings are more slate-coloured, and less irrorated with white, and above the anal lobe is a rather conspicuous triangular pale grey space bordered with black.

Female.—*Upperside.* Anterior wings dark grey, centred with a large pale grey patch extending from the cell and

partly in it, over the disk to the inner margin. Posterior wings slaty grey, with two large round black spots towards the anal angle near the margin, and a black spot partially covered with metallic blue scales and crowned with pale yellow in the lobe; margin narrowly black, with a narrow white line inside it; cilia white.

Underside whiter than in the male, with all the spots and lines, except towards the anal angle of posterior wings, more or less tinted with red; the outer black anal spot on posterior wings is broadly crowned with yellow, the inner black spot is obsolete and represented by a cluster of metallic blue scales.

Expanse of wings, ♂ $1\frac{1}{8}$, ♀ $1\frac{1}{4}$ inch.

Nearest to *D. dariaves*. Mons. Grandidier has figured a species called *batikeli*, Boisd., but his figure does not quite agree with the female above described, and as Mons. Mabille states that the female of his butterfly to a great extent resembles the male, and there can be no doubt that the two insects described by me are sexes of the same species, I venture to consider them distinct from Boisduval's species.

Cyclopides amena.

Upperside. Anterior wings dark brown, with a large yellow patch extending above and over the whole of the cell, except a small space at the base, extending also a little beyond and below the cell as far as the lowest median nervule; a yellow subcostal bar beyond the cell and a small yellow spot below it nearer the outer margin. Posterior wings yellow, except the space along the costal margin as far as the first subcostal nervule.

Underside as above, except that the whole of the apex of the anterior wings is broadly yellow, the two yellow sub-apical spots being merged in the yellow area, but indistinctly seen; a narrow black outer margin. The posterior wings all yellow, irrorated with black along the costal margin.

Expanse of wings 1 inch.

Near to *C. pardalinus*, Butl.

Tagiades samborana.

Male.—Upperside. Both wings pale ashy brown; anterior wings with a cluster of three vitreous spots in the middle of the wings, two small above, the other, twice their size and triangular, below the middle median nervule; a transverse dusky brown bar from the middle of the costa to nearly as far as the median nervule; a narrower bar of the same colour extends from the apex of the lower triangular spot, in

the opposite direction to the upper bar, to a little beyond the middle of the submedian nervure, a dusky spot below the cell at its junction with the lowest median nervule, and another nearer the base below it. Posterior wings with a curved row of dusky spots between the veins a little beyond the middle, the two uppermost being situated below the middle of the costal nervure and approaching the base.

Underside. Anterior wings paler than above, especially the space beneath the lower vitreous spot beyond the narrow bar (which is represented as on the upperside), where it is dusted with pale grey. Posterior wings white, except along the costal margin and apical region, where it is dusted with ashy grey, the row of spots on the upperside being represented on the underside by a row of smaller black spots, several of which are nearly obsolete.

Expanse of wings $1\frac{1}{2}$ inch.

XII.—*Descriptions of two new Scarabæidæ of the Genus*
Phanæus. By CHARLES O. WATERHOUSE.

Phanæus Leander, Dej., in litt.

Niger; capite postice thoraceque viridibus plus minusve auratis vel cuprescentibus, nitidis, crebre rugosis; elytris æruginoso-viridibus, surdis, late sulcatis, interstitiis anguste costiformibus, nitidis, cupreis; pygidio sat fortiter crebre punctato, nitido, viridi, apice nigro; corpore subtus cyanescenti.

♂. Capite cornu longo, acuminato, leviter curvato, crebre punctato instructo; thorace ante basin utrinque tuberculo acuto, nigro armato.

♀. Capite cornu lato, sat longo, crebre punctato, ad apicem bifurcato instructo; thorace disco medio fossa sat magna vix punctata, et supra fossam processu sat magno, lato, horizontali, antice paullo angustiore, ad apicem triangulariter exciso instructo.

Long. 13 lin.

Hab. Colombia, Santa Fé de Bogota (*Buquet*).

This species is allied to *P. hastifer*, but is quite differently coloured, and the armature of the thorax and of the head in the female are different. The thorax is coarsely rugose, obliquely declivous anteriorly, the male having two distant erect black tubercles at a short distance from the base. The female has on the head a broad, erect, slightly curved horn,